

ABSTRACT OF THE DISCLOSURE

A piezoelectric element includes a substrate, a lower electrode on the substrate, a piezoelectric layer on the lower electrode, and an upper electrode on the piezoelectric layer. The upper electrode includes a common base and a plurality of parallel branches extending from the base. The branches are arranged at a regular interval or pitch λ_1 . The lower electrode faces the branches of the upper electrode via the piezoelectric layer. The thickness h of the piezoelectric layer and the branch pitch λ_1 are determined to satisfy an inequality $0.005 \leq h/\lambda_1 \leq 0.1$. The lower electrode has a hillock occurrence rate which is no greater than 0.1%.